

### **Remarks**

Claims 20-39 are pending. Favorable reconsideration is respectfully requested.

Applicants note with appreciation the withdrawal of previously stated objections to claims 20, 23, 26-27 and 31-36; and the withdrawal of rejection of claims 20, 22-23, 26-27, 29-30 and 39 under 35 U.S.C. § 102(b) over *Wendel et al.*, USPN 5,358,998, hereinafter *Wendel*.

Rejection of claims 20-21, 24-25, 27, 29, 31, 34-37 and 39 under 35 U.S.C. 103(a) over *Ritter* in view of *Wendel*, as stated on pages 2-4 of the Office Action, is maintained for substantially the same reasons asserted on pages 4-5 of the prior Office Action dated July 23, 2009. Rejection of claim 32 under 35 U.S.C. 103(a) over *Ritter* in view of *Wendel* and *Miyamoto*, as stated on page 4 of the Office Action, is maintained for substantially the same reasons asserted on page 6 of the prior Office Action dated July 23, 2009. Rejection of claim 28 under 35 U.S.C. 103(a) over *Ritter* in view of *Wendel* and *Famili*, as stated on page 5 of the Office Action, is maintained for substantially the same reasons asserted on pages 6-7 of the prior Office Action dated July 23, 2009. Rejection of claim 33 and 38 under 35 U.S.C. 103(a) over *Ritter* in view of *Wendel* and *Hashemzadeh*, as stated on page 6 of the Office Action, is maintained for substantially the same reasons asserted on pages 7-8 of the Office Action dated July 23, 2009.

Applicants' remarks relevant to these rejections have been submitted for the record, for instance via Applicant's amendment dated October 22, 2009, and are not reproduced herein for brevity. However, Applicants wish to provide the following remarks to clarify several issues that have been raised in the Office Action. Reversal of these claim rejections is respectfully requested.

Re: Item 8(A) on Page 7 of the Office Action

On page 7 of the Office Action, the Examiner asserts that *Ritter's* polymer dispersions can be mixed with water, citing to lines 45-50 in column 9, and argues that *Ritter* could use a dry polymer powder and add water to form the polymer dispersions.

Applicants have stated for the record<sup>1</sup> that *Ritter* concerns starch digestion in a one step process, wherein the polymers are provided in an aqueous dispersion prior to its admission to the starch digestion mixture. In other words, the final form of the polymers brought into contact with the starch is an aqueous dispersion. *Ritter's* process does not involve a composition which contains both starch and redispersible polymer ***powder*** (inherently dry) as recited in the claims. In this regard, whether these dry redispersible polymer powder of *Wendel* may be mixed with water is irrelevant.

Moreover, admitting *Wendel's* polymer mixture to *Ritter's* process would frustrate the latter's intended purpose. *Wendel's* polymer mixture contains degradation products of starch as a stabilizer. *See* col. 2, lines 40-46. These degradation products include sugared starches, of which 10 wt% to 70 wt% and preferably 20 wt% to 40 wt% are finely fragmented small molecules having an average molecular weight of no more than 1000. *See* col. 3, lines 42-48. At least due to their small molecular sizes, these starch degradation products are soluble in water at room temperature. Consequently, *Wendel's* polymer dispersion is essentially a homogenized polymer solution stabilized by the starch degradation products such as the sugared starches, wherein phase separation between a water phase and a polymer phase is intentionally and in effect reduced and/or eliminated. *See* also col. 1, lines 13-18.

To the contrary, and as stated herein above with particular reference to footnote 1, one of the fundamentals of the *Ritter's* process is the one-step starch digestion wherein the starch is thermo-mechanically digested using the water freely accessible from the aqueous polymer dispersion wherein the polymers are largely water insoluble. In this regard, *Ritter's*

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<sup>1</sup> *See* for instance page 8 of Applicants' amendment dated October 22, 2009.

polymer dispersion is essentially a two-phase dispersion, formed of a water phase and a water-insoluble polymer phase. This arrangement is beneficial in that the availability and accessibility of water for starch digestion is potentiated by the water insolubility and hence the water repellence of *Ritter's* polymers.

*Ritter's* intended purpose of making water in the digestion mixture freely available for the thermo-mechanical digestion of starch would be substantially frustrated if the needed water becomes less available, such as in the case if *Wendel's* polymer mixture is used, wherein the polymers, the water, and the sugared starches are essentially in a homogeneously solubilized state of co-existence.

Furthermore, the impact of *Wendel's* starch degradation products such as sugared starches on *Ritter's* thermo-mechanical digestion conditions is largely unknown. It is likely that *Wendel's* starch degradation products could unnecessarily complicate *Ritter's* process by competing *Ritter's* starch for the digestion treatment, and/or altering thermodynamics of the *Ritter's* process by virtue of their presence in the digestion mixture.

Re: Item 8(B) Stated on Page 7 of the Office Action

On page 7 of the instant Office Action, the Examiner asserts that Applicants' remarks demonstrating the drastic differences between *Ritter* and *Wendel* are not persuasive because according to the Examiner, *Wendel* is **only** cited for its teaching of the redispersible polymer powder for ease of handling and storage.

The Examiner's assertion is respectfully submitted to be contrary to the well settled law in the field. It is well established that one cannot simply "pick and choose" isolated teachings from a reference while disregarding other salient features of the reference. *In re Wesslau*, 147 USPQ 391, 393 (CCPA 1965). These "other salient teachings" must be incorporated into any rejection based on a combination of references.

Applicants have stated for the record<sup>2</sup> that *Ritter* is directed to treatment (digestion) of ***starch*** using polymer as a hydrophobicity enhancer with a starch-to-polymer ratio well ***above 150 %***, wherein *Wendel* is directed to the treatment (modification) of ***polymer*** using degraded starch as a stabilizer with a starch-to-polymer ratio at or ***below 120 %***. Contrary to the Examiner's assertions, *Wendel*'s teaching of redispersible polymer powder ***cannot be isolated*** from *Wendel* as a whole, nor can *Wendel* be combined with *Ritter* in total disregard of the above-identified salient features that are drastically different between *Wendel* and *Ritter*.

### CONCLUSION

Applicants submit that the claims are now in condition for allowance, and respectfully request a Notice to that effect. If the Examiner believes that further discussion will advance the prosecution of the application, the Examiner is highly encouraged to telephone Applicants' attorney at the number given below.

Please charge any fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

Respectfully submitted,

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<sup>2</sup> See for instance pages 8-10 of Applicants' amendment dated October 22, 2009 with particular reference to Table I.